

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (original) A light phase modulator comprising a conducting part characterized by the fact that it is based on a multi-gate transistor, which if scaled in the submicron dimension is a gated- nanowire modulator.
2. (original) Light phase modulator according to claim 1 characterized by the fact that is obtained from a SOI or a Si bulk.
3. (currently amended) Light phase modulator according to claim 1 ~~or 2~~ forming a gate-all-around architecture.
4. (currently amended) Light phase modulator according to ~~anyone of the previous claims~~ claim 1 characterized by the fact that it has a triangular, a rectangular, a polygonal, or an ovoid shape.
5. (currently amended) Light phase modulator according to ~~anyone of the previous claims 1 to 3~~ claim 1 characterized by the fact that it has a triangular, a rectangular or a polygonal form with rounded corners.
6. (currently amended) Light phase modulator according to ~~anyone of the previous claims~~ claim 1 in which the conductor part is doped polycrystalline Silicon.
7. (currently amended) Light phase modulator according to claim 3 ~~or 4 or 5~~ forming a capacitive configuration.
8. (currently amended) Optical resonant cavity comprising a light phase modulator according to ~~anyone of the previous claims~~ claim 1.